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ABSTRACT

Recent research about children's early personal-social learning and development is reviewed in relation to three basic psychological questions. The first concerns extent of stability or consistency in stylistic patterns of personal-social behavior across infancy, the preschool years, and the early school years. The second concerns current knowledge about possible antecedents or sources of individual differences in patterns of personal-social behavior, and the third deals with alterability--that is, our understanding of the conditions under which personal-social behavior may be justifiably changed. Major emphasis is placed upon this third question and implications of the current research for education and teacher-training are drawn. (Author/MP)

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Update and Implications of Early Personal-Social Learning

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Abstract

Recent research about children's early personal-social learning and development is reviewed in relation to three basic psychological questions. The first concerns extent of stability or consistency in stylistic patterns of personal-social behavior across infancy, the preschool years, and the early school years. The second basic question concerns current knowledge about possible antecedents or sources of individual differences in patterns of personal-social behavior. And the third question deals with alterability, that is, our understanding of the conditions under which personal-social behavior may be justifiably changed. Major emphasis is placed upon this third question with implications of the current research for education and teacher-training.

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Update and Implications of Early Personal-Social Learning

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Introduction

This paper is focused on children's early personal-social learning and development with an eye toward implications for education. The data base is current psychological research about socioemotional development during infancy, but especially the preschool years and early school years. Time constraints dictate selectivity in the coverage of this literature, hence no claim of comprehensiveness is made. Selectivity is exercised in relation to a twofold thesis: First, that the development and maintenance of positive interpersonal relationships (peer and adult) are crucial factors in school achievement patterns for most children. Second, that school entry marks the beginning of a sensitive period for children's adjustment to organized social and achievement groups about which teachers can profit from more enlightened study than presently occurs in modal teacher education. Such study seems important not only for teachers' dealings with children, but their dealings with parents as well.

To begin, considerable evidence has accumulated about unsatisfactory or dysfunctional social behaviors as a strong predictor of school underachievement, dropout behavior, and various other forms of disengagement from academic tasks (Asbury, 1974; Cervantes, 1965). For example, many children seem ill-equipped in classroom "social survival skills" (attending, initiating, complying with adult directives, punctuality, self-restraint) that might be linked with patterns of school achievement (Hops &

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Cobb, 1972). But it is increasingly clear that varieties of social inadequacies are frequently imbedded in psychological disorders of childhood and beyond (Trower, Bryant, & Argyle, 1978). Although most data come from correlational studies, the frequency and consistency of findings call serious attention to interpersonal relationships as a key variable in healthy psychological development (Sullivan, 1953). This is not to court a "cult of extraversion" by imposing an arbitrary ideal of social development upon children (Ausubel, 1965). Rather, it is a call for integrating concepts of personal-social development into a balanced management of early education.

Major Psychological Questions about Personal-Social Development

Psychological study of personal-social development is dominated by three interrelated questions (see Cairns, Green, & MacCombie, 1980) A first concerns the extent to which human personal-social behavior develops as enduring patterns or orientations across the life span. That is, how stable or consistent are observable styles of personal-social behavior (e.g., harm-doing, altruism, achievement striving) across various situations and from one stage of life to another? A second question flowing logically from the first, is concerned with the antecedents and sources of individual differences in basic patterns of personal-social behavior. This question involves a search for explanations about stability and change in the natural environment. The third question concerns alterability. This means studying the extent to which and conditions under which any basic behavioral pattern can be enhanced or modified by intentional means.

Alterability can be thought about along a continuum from conditions to sustain or enhance "normal" development (as good nutrition and a benevolent psychological environment) through more systematic and focused change efforts (as empathy training) to radical intervention (as drug therapy for hyperkinetic children). Inevitably, any decision about attempts to alter the course of personal-social development will call for a value-laden rationale about what is good or best for individuals and society. Since educators face a clear challenge to facilitate or produce behavior change in a positive sense, it is to the literature on alterability through intervention that they are most quickly drawn. But it is equally clear that a move to this third question can be premature without answers for the first two.

The Onset and Stability of Early Personal-Social Behavior

Perhaps the most definitive finding about early development concerns the development of gender identity. Children's sense of biological maleness or femaleness seems firmly acquired or fixed by about age 3, thereafter to remain stable and generally unchangeable (Green, 1975). The immutability of gender identity is dramatically illustrated by the case of transexuals for whom a change of anatomical sex is easier than changing their gender identity by way of psychological experience. Data from the study of most other human behavioral characteristics precludes such bold statements about early acquisition and stability. Even so, mounting evidence indicates that the roots of most social-emotional behavior extend into early infancy.

A recent review by Beckwith (1979) is instructive. This review reinforces a common theme in infant research: that personal-social behavior as observed during the first six months of life does not predict well to later age periods. But data taken from older infants indicate moderate-to-strong predictability of behavioral patterns from later infancy to the preschool-early school age period. The following four factors will illustrate:

1. General responsiveness to environmental stimulation: A low sensory threshhold in infancy is related to higher expressivity and social empathy in later childhood; a high sensory threshhold is related to later assertive activity.

2. Activity patterning (Including cuddliness): The basal or spontaneous and reactive intensity of activity shown by older infants is associated with preschool peer interaction, assertiveness, and task orientation. Among the more reliable research findings is stability of hyperkinesis from preschool age onward into the school years, especially among males, with negative implications for cognitive-intellectual functioning.

3. Basic affective responses: Irritability (as crying) fearfulness (as anxiety, wariness), and calmness-happiness (as smiling) show considerable consistency during the early years, though sex differences in effect are pronounced in terms of linkages to later behavioral dispositions (see Beckwith, 1979).

4. General sociability: Differences in an expressive, outgoing social orientation (as in attempts to estabish and maintain social interaction and in response to social stimulation) show a fair degree of consistency beyond infancy.

These factors fit well with still stronger findings about the emergency and long-term stability of personal-social behavior. For example, children from the longitudinal Berkeley Guidance Study have presented an organization of behavior, called central orientations, as early as age 4 or 5 (Bronson, 1966a; 1966b). These orientations, observed to persist throughout middle childhood into adolescence, are characteristic sets of attitudes or response tendencies that children reveal in their interpersonal relationships. In the Berkeley sample, two central orientations account for most of the individual differences in personal-social behavior: emotional expressiveness and reactivity-control. Children high in emotional expressiveness are socially-at-ease, lively, and outgoing. In contrast, children low in this orientation are more reserved, shy, and melancholy. As for reactive-control, children high in this orientation are more resistive, explosive, and quick to respond impulsively or unpredictably. Their counterparts low in reactivity-control behave more calmly or impassively across various social settings and comply more readily with attempts by other people to influence them.

These central orientations, of course, can take different forms of expression and serve different needs during the course of early development. But the data do indicate rather early and stable styles of

interpersonal relations. Further, these styles may be more or less adaptive, depending upon social circumstances. The demands of early schooling for example, may generally favor placid-controlled children. And to the extent that teachers value extraversion, more expressive-outgoing children may have the social advantage at school as well.

This hint of adaptive competence underlies a second, more recent research project involving a series of related studies with well over one thousand preschool, day care, and kindergarten children (Kohn, 1977). Unlike the Berkeley study, an example of classical longitudinal reseach, the Kohn (1977) project was motivated by pragmatics--namely, a desire early to identify children who may be "at risk" for positive social adjustment in particular and educational development in general. Once identified, such children may then be more adequately helped to adjust, a logic reminiscent of "a stitch in time saves nine." To meet this objective, Kohn (1977) set about to construct valid, reliable measures for assessing and predicting relationships between social-emotional functioning and other aspects of development, notably school achievement.

A result of this work is a meticulously developed tandem of scales (Social Competence Scale; Problem Checklist) whose use has revealed two major orthogonal dimensions of children's social-emotional functioning. Remarkably similar to the "central orientations" disclosed by the Berkeley Study, these dimensions or factors are termed (a) interest-participation vs. apathy-withdrawal and (b) cooperation-compliance vs. anger-defiance. Taken together, these factors summarize how well children demonstrate

initiative and curiosity, express ideas to others, respond to orderly group activities and adult authority, seek cooperative peer relationships, and so on. On the face of it these factors are pertinent to patterns of success or failure in social group situations. Initial studies (Kohn, 1977) have shown them to be associated with individual differences in measured school readiness and primary grade achievement, particularly for young males. Further data have revealed a rather high degee of stability for these two factors from preschool through the early years barring, of course, any systematic attempt at modification.

The Berkeley Study of central orientations and Kohn's work on social competence are but two examples of empirical support for relatively early and stable patterns of personal-social functioning among children in U.S. culture. Data further compatible with these findings came from a longitudinal study of behavior organization based upon ego psychology (Block & Block, 1980).[1] In the Block and Block (1980) study, nursery school children have been assessed (life history data, observational data, self-report data, test data) periodically beginning at age 3 and extending to ages 4, 5, 7, and 11. As in the Berkeley Guidance Study and Kohn study, the Blocks report two "common denominators" in behavioral organization:

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1. Personal-social functioning is seen largely as a function of ego development: that constellation of perceptions, beliefs, social cognitions, and thought processes that govern our environmental encounters, including interpersonal relationships.

ego control and ego resiliency. Ego control refers to a child's degree of impulse control and modulation, as manifested in deferred gratification and resistance-to-temptation. Ego resiliency concerns a child's capacity to modify ego control functions better to adapt to situational demands or conditions. Degree of flexibility in modifying tempo of response, persistence, and response to stress is involved in resiliency.

Consistent with earlier studies, the Blocks report reliable individual differences in ego control and ego resiliency as early as age 3 with increasing individual differentiation thereafter. Striking evidence of early stability (presented as cross-age correlations) appears especially in children's confidence about goal-setting, inquisitiveness, role taking ability, active engagement and persistence with experimental learning tasks, and quality of peer social interaction patterns. Implications of ego control and resiliency for classroom functioning are self-evident.

To summarize, independent researchers using different methods of assessment for different purposes, seem generally to converge on some rather basic patterns of behavioral organization or characteristics whose onset occurs fairly early in the life cycle and shows increasing stability over time. The terminology and specifics for these patterns vary across studies, yet they are teasingly similar in a conceptual sense. Perhaps the safest conclusion to draw from these studies is that moderate-to-marked stability can be observed at least by age 3 or 4 with some hint for origins during infancy. This does not mean that development is fixed or pre-determined. Nor does it mean that behavior will not change or cannot

be changed. Certain issues immediately surface, however, including how best to account for the relatively early development of basics in personal-social behavior. Thus, we turn to the matter of antecedents and correlates of individual differences in early personal-social learning and development.

Antecedents and Correlates of Early Personal-Social Learning

Historically, the search for antecedents and correlates of early personal-social learning has taken psychogists into two major related categories of individual differences: genetic-constitutional factors and environmental factors, the latter to include socialization practices. This search treads on the persistent issue of nature and nurture in human development and interactive influences that may influence reciprocity in social relationships. No attempt is made here to examine this issue in historical perspective. Rather, some highlights from recent research about genetic-constitutional, and environmental influences are selectively presented.

Genetic-Constitutional Factors. A strong argument can be made about certain genetic-constitutional factors as setting condition for social development even though consensus about degree of heritability of personality has not been achieved. Buss and Plomin (1975) provide an extensive summary of evidence about the heritability of sociability, emotionality, activity, and impulsivity. Related study (Thomas & Chess, 1973) suggests that a core of temperamental characteristics provides the

basis for behavioral depositions that emerge early in life. Though subject to moderate modification, these temperamental characteristics may provide a partial basis for the stability of general personal-social orientation through time. Again, any suggestions about developmental continuity from early to later years evokes skepticism among many researchers largely because of measurement difficulties (Izard, 1980). The firmest consensus surrounds a concept difficult temperament whose most central feature is rate of fussing and crying (Bates, 1980). Even so, difficulty temperament cannot be divorced from an "eye of the beholder" interpretation. That is, maternal perception of difficulty may be a stronger determinant of quality of mother-infant social interaction than temperament per se.

Closely related to temperament are biological correlates or possible underpinnings of a characteristic described as "sensation-seeking" (Zuckerman, Buchsbaum, & Murphy, 1980). Behavioral characteristics associated with sensation-seeking across the life span include individual differences in sociability, social dominance, response to novel situations, sexual experiences, experience with drugs, and certain forms of psychopathology (e.g., manic-depressive tendencies). Biological phenomena are also linked with sensation-seeking, as certain reflex responses and biochemical variables (enzymes and gonadal hormones) which provoke intriguing research questions. This intrigue is heightened by correlations between uric acid and achievement-oriented behavior, glutamic acid and cognitive learning, and chloresterol and stress reactions (Broverman et al., 1974; Kasl, 1974; Mueller et al., 1970; & Vogel et al., 1966).

A growing literature about neuropsychology points further to constitutional factors that may mediate early socialization. Cortical arousal and conditionability are implicated in aspects of moral development, especially empathetic response (Eysenck, 1976; Clark, 1980). Hyperactivity has been linked to dysfunction in the diencaphalon[2] region of the reticular activity system (Baxley & LeBlanc, 1976). Autonomic imbalance, i.e., "warring" branches of the autonomic nervous sysem (sympathetic vs. parasympathetic system), has surfaced as a possible source of affect-related disturbancs (Porges, 1976). Emerging work on hemispheric specialization may also reveal at least indirect sources of learning differences, especially in terms of information-processing (Chall and Mirsky, 1978). Noteworthy neuropsychological research is also under way in the quest to understand variations in basic learning ability and academic achievement (Filskow & Boll, 1980; Tolmes et al., 1980).

In short, one confronts a dazzling array of genetic constitutional factors that may contribute to the course of early learning. Specifics are not well understood. Thus, any attempt to integrate such findings to establish how much variation in early learning can be accounted for genetic-constitutional factors is premature, if even feasible. Though research

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2. The posterior part of the forebrain that connects the midbrain with the cerebral hemispheres and which contain the pituitaries.

evidence of this kind draws our attention to possible biological determinants it should not be used to support a fatalistic interpretation of human development. This is because equally provocative evidence suggests that qualitative aspects of the early learning environment are significant for early personal-social learning and development. This leads us to some highlights from the recent socialization literature with emphasis upon family influences.

Parenting and familial social influences. The bulk of recent reesearch about parenting and familial social influences can be organized around the notion of parental or caregiver competence. Four aspects of parental competence are examined here: establishing reciprocal communication and a secure attachment with the infant, organizing the physical environment, modeling an effective teaching style, and exercising a constructive pattern of parental authority.

First consider attachment--that enduring affectional tie that binds infant and caregiver and believed to represent the foundation for social development and interaction (Ainsworth et al 1978). Child development authorities seem to agree that all infants attach to the primary caregiver. But current thinking holds that important variations occur in attachment security, the strength of degree of which is observable by about age 1 (Sroufe and Waters, 1977). At that point, three rough classifications of attachment quality or type are reported: secure (ready exploration, and active reunion with caregiver for comfort after brief separation); avoidant (ready separation, but abortive reunion and problematic return to active

exploration); and resistant (low exploration, unsettled reunion, often fussy even in response to comforting). Though infant temperament may be implicated in attachment behavior, these patterns are seen more as emerging personality organizations and remind us of the central orientations discussed earlier in this paper.

Antecedents to attachment are not yet firmly established. Present data point most clearly to caregiver responsiveness, or to ability to initiate and sustain a cycle of reciprocal communication and affect expression. Responsivity, in turn, is probably influenced by a general readiness for parenting, quality of the marital relationship, and/or the social support system available to a caregiver. This latter factor seems particularly important concerning the frequency, duration, and intensity of stressful life events (e.g., death of parent or sibling, divorce, frequency change of residence) that a given family may experience (Rutter, 1979). Regardless, this early affectional bond continues to be viewed as a wellspring for variation in motivational developments such as curiosity, anxiety, empathy, and trust despite the absence of hard supportive data (see especially Ainsworth et al., 1978; & Hunt, 1979).

A second aspect of parental *or caregiver* competence to which contemporary researchers have been drawn, is organization of the home environment. Three examples will illustrate, all of which present strong correlational data between home factors and children's social and cognitive competence. The Harvard Pre-School Project (White, 1978) has pointed to the value of organization for maximum physical safety with simultaneous provision for

maximum access by infants to the home environment for exploratory forays. Bradley and Caldwell (1980) point to the availability of play material strong in audiovisual properties and consistency in the organization and temporal regulation of daily routines. To these variables can be added lack of overcrowding and adequate degree of personal space as indicated by availability of a "stimulus shelter" for the infant (Wachs, 1979). Wachs (1979) has also documented a negative relationship between early development and high noise confusion level in the home. In short, parental competence in organizing a safe, open world emerges as an important home correlate of positive early growth and development.

Research on parental teaching style, a third variable in competent parenting, provides a number of clues about early experience and children's development. Flexibility in engaging both reactive (spontaneous, informal) and proactive (more systematic and organized) learning situations marked by appropriate language communications and support for "learner's leeway" is noteworthy (Clarke-Stewart, 1977). Existing evidence prompts a reasonable inference that children's learning styles and motivation for achievement, including beliefs about what causes success and failure, are more or less shaped by the "hidden curriculum" in the home, including parental modeling, cueing, and reinforcement practices (Evans & McCandless, 1978). These factors are most often linked with children's early cognitive-intellectual development. But the recent study of social cognition (conceptualizing and evaluating other people's behavior, social role taking, knowledge of social norms) suggests that parental teaching styles and modes of play with their

children transcend the realm of intellectual achievement (Shantz, 1975). Effective parents will be quick to recognize when teaching opportunities arise, practice induction in their verbal interchange with their children, respond readily to children's requests for information, and share openly their children's enthusiasm or excitement about new ideas (Clarke-Stewart, 1978; Fine, 1980; White, 1978).

A fourth, and final, aspect of parental competence to be discussed here concerns the way in which parents exercise authority in socializing their children. Analysis of parental authority patterns suggests that two broad interacting parental orientations toward child rearing are important: General affect and management style (Evans and McCandless, 1978). Parental affect can be described along with continuum from warmth and acceptance through indifference, to coldness and hostility. Affect, then, provides the emotional context within which behavioral management strategies are attempted. Similarly, management style refers to the way by which parents attempt to train and control their children's conduct. Management strategies fall along a continuum from relative freedom for autonomy to restrictive control. Putting these two dimensions together, various combinations of parental authority expression can therefore be observed (warm-autonomy, warm-restriction, cold-autonomy, cold-restriction) each of which may result in different qualities of parent-child relationship and child behavior.

A concern for reciprocal influence must be heeded here because children with different temperamental dispositions may not respond similarly to a given pattern of parental authority. In fact, the nature of children's

responses to parental control strategies may shape the course of disciplinary experience! (Bell & Harper, 1977). Yet children's development of social responsibility and independence (instrumental competence), as well as self-esteem, has most generally been associated with authoritative parenting (Baumrind, 1971; Coopersmith, 1968). In contrast to authoritarian (forceful demands for obedience) and permissive parenting (laxity in standard and control), authoritative parenting is marked by firm, but fair and rational control within a context of acceptance. Standards for behavior are made clear and disciplining policies are reasonably consistent. Both autonomy and disciplined conformity are valued. Verbal give-and-take occur frequently. It is plausible to argue that authoritative parents are relatively self-assured about themselves and their roles as parents, capable of communicating disciplinary rationales clearly and logically, and also sensitive to the young child's sense of autonomy and mastery of the environment.

Still other sources of environmental influence can be cited. Among the most prominent are those concerning sibship-family constellation factors in psychosocial development (e.g., family size, ordinal position of the child, and spacing of siblings). High research interest in such factors is illustrated by one recent review involving well over 500 citations (Wagner and Schubert, 1979). Most generally, this review suggests modest-to-strong relationships between sibship-constellation factors and children's intellectual-achievement behavior and self-esteem (as well as implications for parental adjustment and marital relations).

Beyond the family, early peer experiences and relations with other adult authorities provide still further experiences germane to early self-concept development. Again, experiences that promote a sense of mastery or competence (vs. learned helplessness) are at issue (Seagull & Kallen, 1978). To peer influences can be added the mass media, particularly television, as a source of social attitude learning (see, for example, Palmer and Dorr, 1980). [redacted]. Space restrictions prevent further commentary along these lines. The present case for early social influences rests primarily on the cornerstone of parental competence.

The Personality Tree

We come now to a transition point. Having discussed major patterns of personal-social learning and their possible antecedents it is convenient to draw an analogy between stylistic features of social development and scaling a tree whose branches transverse in increasingly distinct ways (Schwarz, 1979). In other words, the developmental course of personal-social behavior can be likened to the branches of a tree with branching variously affected by the genetic-constitutional and environmental influences we have discussed. At ground level, the trunk is only grossly differentiated. But the higher one goes in the tree the more difficult it may be to move from one branch to another. At every fork, however, some shift in direction can occur, depending upon circumstances at the time.

Extrapolating across related studies and making a few inductive leaps of his own, Schwarz (1979) envisions a tree with branches that cross and

recross through three basic styles of social development: cooperation, fearful-avoidance, and antagonism. Responsive, nurturant care will establish a greater likelihood for the cooperative style (related to competence and self-confidence). Otherwise, and depending upon peculiar combinations of constitutional and parenting influences, less satisfactory directions may be charted. The age period 6-30 months is seen as a particularly sensitive one for traversing the first major fork of the tree. Subsequently, the advent of peer group experience and early school experience may reinforce or alter the branching process.

Though experiences generally have a cumulative effect, they do not necessarily etch irreversible characteristics of personal-social development. It can be argued that initially positive branching can later splinter and crack. Conversely, initially weak or unsuitable branching may find new directions as a child's social world broadens. Most will agree that the main task of socialization agencies is to sustain and strengthen positive branching and redirect less positive branching. To use the Schwarz (1979) interpretation, children most at-risk are those who show persistent fearful-avoidant or antagonistic branching patterns. To what extent and how can such patterns be redirected?

Alterability of Personal-Social Behavior Patterns

A long-standing principle of developmental psychology states that organization inhibits reorganization (Scott, 1968). Applied to personal-social development, this implies that the longer children enact a particular

behavioral style, the more difficult it will be for them to change (Schwarz, 1979). As noted earlier, opportunities for change occur as children's social spheres expand. Children whose adjustment is tenuous during sensitive periods in this expansion may be ill-served if change opportunities are left to chance. Early group experiences (as nursery school) may yield modest social benefits for many children (Swift, 1964). But there is little reason to believe that sheer volume of peer contact in organizational settings will necessarily promote self-adjustive social development. Ironically, even well-intentioned teachers may accentuate the problems of socially unskilled children by opting for negative sanctions against the uncooperative child or naive demands for social participation with the shy, fearful child.

Enter, then, more focused efforts to enhance personal-social development or alter deficiencies and excesses in social behavior. These efforts result in strategies that range from generic social-interpersonal education prescribed for all children (e.g., Bessell & Palomares, 1967) to clinical therapeutic procedures for severely socially disturbed children (Schaefer & Millman, 1979). A full discussion of alternatives is beyond the scope of this paper. Instead, we concentrate on the freshly developed "middle range" strategies designed for use with socially-at-risk children in the normal population. Current strategies reflect the strong influence of psychological theory, especially descriptive behaviorism, social learning theory, and cognitive psychology. Rationales for these strategies include a specification of functional interpersonal skills to serve as program

objectives. These skills or behavior are usually derived from consideration of sociometric research. This research identifies characteristics of children who are consistently low in popularity and peer group status, e.g., immature dependency, hostile aggressiveness, inadequate referential communication skills, insufficient knowledge about how to make friends, shy withdrawal, and so on (Asher & Sullivan, 1970; Putallaz & Gottman, in press, 1981).

Behavioral Principles

Early on, systematic approaches to social behavior change in educational settings were dominated almost exclusively by controlled application of behavior modification principles. Typical of this control are contingent positive reinforcement to increase the frequency of isolated children's peer contacts and nonreinforcement to extinguish approximations of aggressive behavior. (see, for example, Allen et al., 1964; O'Conner, 1972). More recently, behavioral principles have been extended to more complex variations on the theme of self-control training: self-observation and self-reinforcement skills, alternative response deployment, and self-instruction training (Kazdin, 1979).

The self-instruction theme, in particular, has further broadened to incorporate principles of cognitive learning (see Pressley, 1979). Meichenbaum's (1976) work in combining behavioral analysis methods with covert information processing is important here. Principal components of this cognitively oriented behavioral theory are self observation, learning

to produce new internal dialogues to supplant maladjustive thoughts and behaviors with more adaptive ones, and actual production of new behaviors and self-assessments (via self talk) about these behaviors and their consequences. The basic, still-debated assumption underlying this approach is that persons can learn to behave differently by developing new forms of internal speech to guide their social interactions.

Conventional behavior modification techniques are usually successful over the short term, although nagging questions persist about the maintenance and generalization of conditional skills beyond the training setting. Similarly, innovative cognitive behavior modification approaches show promise under certain conditions, but their effectiveness would seem to depend largely upon language capacities not fully developed in very young children.

Social coaching and modeling. Further mixes of behavior principles, cognitive theory, and social learning principles have surfaced recently to spur considerable research interest (Asher & Odon, 1977; Gresham & Nagle, 1980; Ladd, in press, 1981; LaGreca & Santagrossi, 1980). Taking this approach, specific social skills (e.g., greeting, smiling, inviting, leading, complimenting, encouraging, question-asking) are taught within a framework of familiar techniques. These techniques include verbal instructions and directions (e.g., modeling, positive social statements, and direct suggestions), exposure to videotypes which portray positive social interactions, guided and self-directed rehearsal (often in the context of games and role playing), use of corrective feedback, and peer and self-

evaluation activities. The duration, intensity, and emphasis of social coaching and modeling approaches vary considerably. But they share a common spirit of social effectiveness training with generally consistent results. That is, trained children usually show gains in comparison to their untrained counterparts.

Problem-solving strategies. Even more direct, cognitive-based strategies have been established. Notable in this genre' is Shure and Spivack's (1978) problem-solving approach to interpersonal skills training and the prevention of social maladjustment. The core of this approach is instruction in interpersonal cognitive problem-solving skills (ICPS) that have a demonstrable relationship to social give and take among children. High priority skills include the ability to envision multiple solutions to interpersonal problems (generate alternatives), ability to anticipate the consequences of social actions, and the ability to find fair or just solutions and consequences. ICPS training is scripted for both teachers and parents of young children. Over 40 days worth of lessons are carefullly sequenced, beginning with methods to secure acquisition of any necessary prerequisite skills (including vocabulary). Interpersonal problems relevant for young children are presented (e.g., being rejected or attacked by a peer) with accompanying dialogues about how one might resolve conflict and establish reciprocal social relations. A salutary feature of the ICPS program is that it shows impressive results with children as young as age 4 under well-controlled conditions of evaluation research.

There is considerably more to the story of intervention for social adjustment (see, for example, Cartledge & Milburn, 1980). The quest for

viable intervention strategies is sure to continue. Unfortunately, this quest seems largely concentrated in pockets of behavioral science not widely visible to practicing educators. But if early education is intended to contribute positively to overall childhood socialization, it seems reasonable for educators to make a systematic study of intervention strategies. If it continues to be shown that strategy enactment can make a positive difference in children's social lives, then teachers must abandon any arbitrary hit-or-miss tactics in favor of the more theoretically sound, proven techniques. Kindergarten-primary teachers are in a particularly strategic position to influence the social branching process mentioned earlier in this paper.

With this in mind, three recommendations for teacher education are offered here, all of which are predicated on the assumption that branching can be influenced by early schooling. First, if teachers elect to intervene in children's social lives, they should become well versed in the literature on socioemotional development, including the "small print" about attempts at modification. This means skill in evaluating possible intervention strategies on the basis of at least three criteria: One is that any proposed strategy should present clearly defined, attainable objectives couched in a coherent supporting rationale (as a theory of learning and social competence). A second criterion concerns ethical, feasible application in the normal school situation by existing staff who are also effective in coordinating home-school relations. Feasibility will include methods for identification, screening, and asessment to change. It also

includes specific directives for the management of learning sequences. The third criterion against which to measure a possible strategy concerns ecological validity. This means authentic empirical support for strategy effectiveness in the field, not simply a laboratory setting. Moreover, this empirical support should speak to longer term impact beyond the more commonly reported and sometimes illusory short-term outcomes. Possible negative, unintended outcomes should also be ruled out.

It may come as no surprise that few presently organized intervention strategies fully meet these criteria. Problems of measurement and ecological validity are especially acute (Urbain & Kendall, 1980). There is some evidence, however, in favor of the reciprocal-influence model based upon cognitive-social learning theory (Coates & Thoreson, 1979) and approaches designed to promote advanced conceptualization about social interaction (Kendall & Wilcox, 1980). Thus, some combination of social coaching and interpersonal cognitive problem solving seems most promising for educators at this time.

My second recommendation is straightforward: practice. It is essential that teachers have ample opportunity for guided practice in the execution of intervention techniques. It is not enough to read or be told about such approaches. Strategies must be rehearsed and refined before their delivery to children. Whether in preservice or inservice training, there can be no substitute for practice. One intriguing possibility is to begin with social skills training for teachers themselves!

Finally, it is questionable that social skills intervention should be left to the discretion of individual teachers. Preferable is a more coordinated effort by teachers and special service personnel that begins early in the kindergarten year and extends consistently through the ensuing grades. Genuine growth in social competence takes time, especially if it involves moving from borderline to more secure adjustment. Stability in positive personal-social behavior will, in large part, be a function of stability in the social environment of the school. Teachers remain the single most powerful factor in promoting such stability.

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